



MS APPEAL BRIEF - PATENTS
Docket No.: 0033-0630P
(PATENT)

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of:
Shuichi WATANABE

Application No.: 09/451,097

Confirmation No.: 8589

Filed: November 30, 1999

Art Unit: 2613

For: IMAGE RETRIEVING APPARATUS
PERFORMING RETRIEVAL BASED ON
CODING INFORMATION UTILIZED FOR
FEATURED FRAME EXTRACTION OR
FEATURE VALUES OF FRAMES

Examiner: R. J. Lee

APPEAL BRIEF TRANSMITTAL FORM

MS Appeal Brief - Patents
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

Transmitted herewith is an Appeal Brief on behalf of the Appellants in connection with the above-identified application.

☐ The enclosed document is being transmitted via the Certificate of Mailing provisions of 37 C.F.R. § 1.8.

A Notice of Appeal was filed on September 20, 2005. A Notice of Panel Decision from Pre-Appeal Brief Review was mailed on November 18, 2005.

☐ Applicant claims small entity status in accordance with 37 C.F.R. § 1.27.

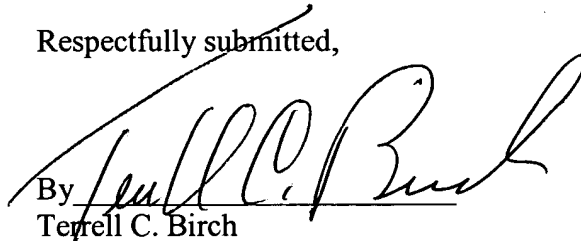
The fee has been calculated as shown below:

- ☐ Extension of time fee pursuant to 37 C.F.R. §§ 1.17 and 1.136(a).
- ☒ Fee for filing an Appeal Brief - \$500.00 (large entity).
- ☒ Check in the amount of \$500.00 is attached.
- ☐ Please charge Deposit Account No. 02-2448 in the amount of \$. A triplicate copy of this sheet is attached.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. §§ 1.16 or 1.17; particularly, extension of time fees.

Dated: December 15, 2005

Respectfully submitted,

By 

Terrell C. Birch

Registration No.: 19,382

BIRCH, STEWART, KOLASCH & BIRCH, LLP

8110 Gatehouse Road

Suite 100 East

P.O. Box 747

Falls Church, Virginia 22040-0747

(703) 205-8000

Attorney for Applicant

Attachment(s)



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APPEAL BRIEF

MS Appeal Brief - Patents
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

A Notice of Appeal with a Request for Pre-Appeal Brief Conference was filed on September 20, 2005. A Notice of Panel Decision from Pre-Appeal Brief Review was mailed on November 18, 2005. As provided in the July 12, 2005, Notice regarding New Pre-Appeal Brief Conference in the U.S. PTO Official Gazette, the deadline for filing an Appeal Brief is the longer of two months from the date of the Notice of Appeal or one-month from the date of the mailing of the Decision on the Request. This brief is filed within one month of the Decision on the Request and is in furtherance of the September 20, 2005, Notice of Appeal.

The fees required under § 41.20(b)(2) are dealt with in the accompanying TRANSMITTAL OF APPEAL BRIEF.

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This brief contains items under the following headings as required by 37 C.F.R. § 41.37 and M.P.E.P. § 1206:

I.	Real Party In Interest
II	Related Appeals and Interferences
III.	Status of Claims
IV.	Status of Amendments
V.	Summary of Claimed Subject Matter
VI.	Grounds of Rejection to be Reviewed on Appeal
VII.	Argument
VIII.	Claims
IX.	Evidence
X.	Related Proceedings
Appendix A	Claims

I. REAL PARTY IN INTEREST

The real party in interest for this appeal is:

Sharp Kabushiki Kaisha.

II. RELATED APPEALS, INTERFERENCES, AND JUDICIAL PROCEEDINGS

There are no other appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in this appeal.

III. STATUS OF CLAIMS

A. Total Number of Claims in Application

There are 25 claims pending in this application.

B. Current Status of Claims

1. Claims canceled: 2-4, 28-36 and 38.
2. Claims withdrawn from consideration but not canceled: 5-14, and 19-26.
3. Claims pending: 1, 15-18, 27 and 37.
4. Claims allowed: 15-18.
5. Claims rejected: 1, 27 and 37.

C. Claims On Appeal

The claims on appeal are claims 1, 27 and 37.

IV. STATUS OF AMENDMENTS

An Amendment After Final Rejection was filed on August 18, 2005. The Advisory Action mailed September 1, 2005, indicates that the amendment has been entered. It is noted that the Amendment After Final Rejection erroneously gave the status of claim 15 as "Currently amended." The status of claim 15 should have been given as "Previously presented." The only change made by the August 18, 2005, Amendment was the cancellation of claim 38.

V. SUMMARY OF CLAIMED SUBJECT MATTER

A. CLAIM 1

Claim 1 is directed to an information storing apparatus that analyzes frames of image data and generates a numerical value, referred to as a "frame feature value," for a plurality of the frames. The apparatus includes a motion vector statistic calculating unit 204 (Fig. 2) that calculates statistics of motion vectors in the frames that are detected by valid motion vector detecting unit 203. Statistics of motion vectors calculated by calculating unit 204 may include, for example, an average value of the magnitudes of motion vectors corresponding to a P (forward interframe predictive coding) block for a P frame over an entire frame. Page 12, lines 5-17

describe this and other examples of statistics that may be calculated by calculating unit 204.

The apparatus further includes a frame feature value generating unit 102, shown in Figure 2, which includes a statistic information converting unit 205 that uses the statistics calculated by calculating unit 204 to generate a frame feature value (page 12, lines 18-20), which is a numeric value (page 4, lines 26-29).

The apparatus also includes a frame feature value storing unit 103, shown in Figure 1 connected to generating unit 102, that stores the frame feature values generated by generating unit 102. The frame feature values are stored in correlating form, for example in the header of various frames or as separate data independent from the image data (page 13, line 33 through page 14, line 5).

B. CLAIM 37

Claim 37 is directed to a method of associating frame feature values with a plurality of frames of image data. The method involves calculating statistics of motion vector information related to the image data using, for example, the vector statistic calculating unit 204 (Fig. 2) discussed above in connection with claim 1. That calculating unit 204 calculates statistics of motion vectors that may include, for example, an average value of the magnitudes of motion vectors corresponding to a P block for a P frame over an entire frame. Page 12, lines 5-17, describe this and other examples of statistics that may be calculated by calculating unit 204.

The method of claim 37 also involves generating a frame feature value from the statistics. The frame feature value comprises numerical information representing a quantity of a feature contained in a frame of the image data using the calculated statistics. The frame feature value may be generated by frame feature value generating unit 102, shown in Figure 2, which includes a statistic information converting unit 205 that uses the statistics calculated by calculating unit 204 to generate a frame feature value (page 12, lines 18-20), which is a numeric value (page 4, lines 26-29).

VI. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

Claims 1 and its dependent claim 27 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Takashima, U.S. 5,754,233, in view of Nagasaka, U.S. 6,400,890.

Claim 37 stands rejected under 35 U.S.C. 102(b) as being anticipated by Takashima.

VII. ARGUMENT

A. CLAIM 1

Claim 1 stands rejected as being unpatentable over Takashima in view of Nagasaka. A proper motivation for combining these references has not been provided, and therefore a *prima facie* case of obviousness has not been presented. In addition, the invention required by claim 1 is not shown or suggested by these references. Each of these issues is addressed below.

1. A PROPER MOTIVATION FOR COMBINING TAKASHIMA AND NAGASAKA HAS NOT BEEN PROVIDED

The final Office Action states that it would have been obvious to combine Takashima and Nagasaka because one of ordinary skill in the art “would have had no difficulty in providing the frame feature value storing unit 126 or 128 of Nagasaka et al to be connected to the frame feature value generating unit 100 of Figure 11 of Takashima for the same well known buffering of data for timely processings and featured frame representation purposes as claimed” (emphasis added).

The fact a person of ordinary skill would have “no difficulty” combining the references is not the standard for establishing a motivation to combine references. See, MPEP 2143.01 (“The mere fact that references can be combined or modified does not render the resultant combination obvious unless the prior art also suggests the desirability of the combination. *In re Mills*, 916 F.2d 680, 682; 16 U.S.P.Q. 2d. 1430, 1432 (Fed. Cir. 1990). It is therefore respectfully submitted that a proper motivation for combining the references has not been provided, and that a *prima facie* case of obviousness has not been established.

The rejection indicates that the combination is being made “for timely processings and featured frame representation purposes.” It is not clear whether this statement is intended to describe a motivation for combining references. However, the statement, at most, seems to suggest some advantage that would allegedly occur if the modification proposed by the examiner

were made. The statement does not appear to come from the art of record, does not appear relevant to the claimed invention, and in no manner suggests the combination of Takashima and Nagasaka relied upon by the examiner. For this reason as well, it is respectfully submitted that a motivation for combining Takashima and Nagasaka has not been provided and that claim 1 is allowable over these references.

2. ALL ELEMENTS REQUIRED BY CLAIM 1 ARE NOT SHOWN BY
TAKASHIMA AND NAGASAKA

Claim 1 requires a calculating unit for calculating statistics of motion vector information related to image data. The Office Action indicates that Takashima satisfies this limitation because in Takashima, “scene changes are detected by exploiting of motion vector detection operations performed by motion estimation circuit 103, with the exploiting of motion vectors providing the calculating the statistics of motion vector information as claimed, see column 15, lines 11-20 and lines 32-67.” It is respectfully submitted that these lines of Takashima do not show or suggest the calculation of statistics of motion vector information as claimed. Instead, lines 11-20 of Takashima relate to motion vectors, not statistics of motion vectors as claimed. The fact that motion vectors are “exploited” according to Takashima in no manner suggests that statistics of motion vector are “calculated” by Takashima as suggested in the Office Action.

Column 15, lines 44-48 of Takashima refer to the use of a sum of absolute values of residuals that are obtained at the time of motion vector detection. It appears that the examiner might be interpreting this information to constitute statistics. However, to the extent that statistics are discussed, they are statistics of residuals, not statistics of motion vector information as claimed. As explained at column 2, lines 57-64, of Takashima, “residuals” are the bits of encoding information remaining after an interrupt is detected that are allocated to a given group of pictures. These residuals are not motion vector information.

Takashima does not show a calculating unit for calculating statistics of motion vector information. The Office Action does not argue that this feature is shown by Nagasaka. Because Takashima and Nagasaka do not show all features of the invention required by claim 1, it is respectfully submitted that claim 1 is allowable over these references even if a motivation for

combining the references is found to exist. The withdrawal of the rejection of claim 1 as being unpatentable over Takashima and Nagasaka and the allowance of claim 1 are therefore respectfully requested.

B. CLAIM 27

Claim 27 depends from claim 1 and is submitted to be allowable for the same reasons as claim 1.

C. CLAIM 37

Claim 37 stands rejected under 35 U.S.C. 102(b) as being anticipated by Takashima. As discussed below, Takashima does not show all elements required by claim 37, and claim 37 is therefore submitted to be allowable over Takashima.

1. TAKASHIMA DOES NOT CALCULATE STATISTICS OF MOTION VECTORS

Claim 37 requires a step of calculating statistics of motion vector information related to image data. As discussed above in connection with claim 1, Takashima does not disclose a calculating unit for calculating statistics of motion vectors and does not perform a step of calculating statistics of motion vectors. Finding a motion vector is not the same as the claimed step of calculating statistics of motion vectors. As discussed above, calculations performed on residuals as disclosed in Takashima do not show a step of calculating statistics of motion vectors as claimed. Because at least this limitation required by claim 37 is not shown by Takashima, it is submitted that claim 37 is allowable over Takashima.

2. TAKASHIMA DOES NOT GENERATE A FRAME FEATURE VALUE BASED ON STATISTICS

Claim 37 further requires a step of generating a frame feature value using the calculated statistics. As discussed above, Takashima calculates no statistics of motion vectors and therefore cannot generate a frame feature value from the calculated statistics as claimed. Element 101 of

Takashima, referred to in the Office Action, is a scene change detection circuit, but in no manner suggests the claimed step of generating a frame feature value. For this reason as well, the withdrawal of the rejection of claim 37 as anticipated by Takashima and the allowance of claim 37 are respectfully requested.

VIII. CLAIMS

A copy of the claims involved in the present appeal is attached hereto as Appendix A. As indicated above, the claims in Appendix A do include the amendments filed by Applicant on August 18, 2005.

IX. EVIDENCE

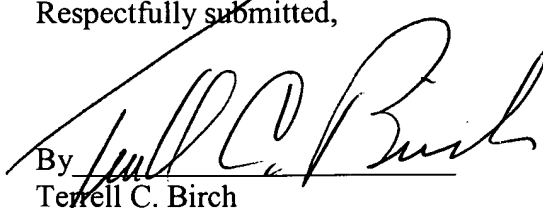
No evidence pursuant to §§ 1.130, 1.131, or 1.132 or entered by or relied upon by the examiner is being submitted.

X. RELATED PROCEEDINGS

No related proceedings are referenced in II. above, and copies of decisions in related proceedings are not provided, hence no Appendix is included.

Dated: December 15, 2005

Respectfully submitted,

By 

Terrell C. Birch

Registration No.: 19,382

Scott T. Wakeman

Registration No.: 37,750

BIRCH, STEWART, KOLASCH & BIRCH, LLP

8110 Gatehouse Road, Suite 100 East

P.O. Box 747

Falls Church, Virginia 22040-0747

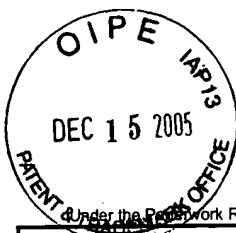
(703) 205-8000

Attorneys for Applicant

APPENDIX A

Claims involved in the Appeal of Application Serial No. 09/451,097

1. (Previously presented) An image retrieval information storing apparatus for storing frame feature values in association with a plurality of frames of image data, comprising:
 - a calculating unit for calculating statistics of motion vector information related to said image data;
 - a frame feature value generating unit for generating a frame feature value which is numerical information representing quantity of a feature contained in a frame of said image data using the calculated statistics; and
 - a frame feature value storing unit for storing said frame feature value in correlating form with the frame of said image data, the frame feature value storing unit being connected to said frame feature value generating unit.
27. (Previously presented): The image retrieval information storing apparatus according to claim 1, further comprising:
 - a coding information reading unit for reading motion vector information from said image data which is coded; and
 - said frame feature value generating unit generates said frame feature value based on said motion vector information.
37. (Previously presented) A method of associating frame feature values with a plurality of frames of image data, comprising the steps of:
 - calculating statistics of motion vector information related to said image data; and
 - generating a frame feature value comprising numerical information representing a quantity of a feature contained in a frame of said image data using the calculated statistics.



PTO/SB/17 (12-04v2)
Approved for use through 7/31/2006. OMB 0651-0032
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FEE TRANSMITTAL For FY 2005		Complete if Known	
		Application Number	09/451,097-Conf. #8589
		Filing Date	November 30, 1999
		First Named Inventor	Shuichi WATANABE
		Examiner Name	R. J. Lee
<input type="checkbox"/> Applicant claims small entity status. See 37 CFR 1.27	Art Unit	2613	
TOTAL AMOUNT OF PAYMENT	(\$) 500.00	Attorney Docket No.	0033-0630P

METHOD OF PAYMENT (check all that apply)

☒ Check ☐ Credit Card ☐ Money Order ☐ None ☐ Other (please identify): _____

☐ Deposit Account Deposit Account Number: 02-2448 Deposit Account Name: Birch, Stewart, Kolasch & Birch, LLP

For the above-identified deposit account, the Director is hereby authorized to: (check all that apply)

☐ Charge fee(s) indicated below ☐ Charge fee(s) indicated below, except for the filing fee

☒ Charge any additional fee(s) or underpayment of fee(s) under 37 CFR 1.16 and 1.17 ☒ Credit any overpayments

FEE CALCULATION

1. BASIC FILING, SEARCH, AND EXAMINATION FEES

Application Type	FILING FEES		SEARCH FEES		EXAMINATION FEES		Fees Paid (\$)
	Fee (\$)	Small Entity Fee (\$)	Fee (\$)	Small Entity Fee (\$)	Fee (\$)	Small Entity Fee (\$)	
Utility	300	150	500	250	200	100	
Design	200	100	100	50	130	65	
Plant	200	100	300	150	160	80	
Reissue	300	150	500	250	600	300	
Provisional	200	100	0	0	0	0	

2. EXCESS CLAIM FEES

Fee Description	Fee (\$)	Small Entity Fee (\$)
Each claim over 20 (including Reissues)	50	25
Each independent claim over 3 (including Reissues)	200	100
Multiple dependent claims	360	180

<u>Total Claims</u>	<u>Extra Claims</u>	<u>Fee (\$)</u>	<u>Fee Paid (\$)</u>	<u>Multiple Dependent Claims</u>
_____	_____	_____	_____	<u>Fee (\$)</u> <u>Fee Paid (\$)</u>
_____	_____	_____	_____	_____
<u>Indep. Claims</u>	<u>Extra Claims</u>	<u>Fee (\$)</u>	<u>Fee Paid (\$)</u>	
_____	_____	_____	_____	
_____	_____	_____	_____	

3. APPLICATION SIZE FEE

If the specification and drawings exceed 100 sheets of paper (excluding electronically filed sequence or computer listings under 37 CFR 1.52(e)), the application size fee due is \$250 (\$125 for small entity) for each additional 50 sheets or fraction thereof. See 35 U.S.C. 41(a)(1)(G) and 37 CFR 1.16(s).

Total Sheets	Extra Sheets	Number of each additional 50 or fraction thereof	Fee (\$)	Fee Paid (\$)
_____	_____	_____	_____	_____
_____ - 100 = _____ / 50 _____ (round up to a whole number) x _____ = _____				

4. OTHER FEE(S)

	Fees Paid (\$)
Non-English Specification \$130 fee (no small entity discount)	
Other (e.g., late filing surcharge): 1402 Filing a brief in support of an appeal	500.00

SUBMITTED BY			
Signature		Registration No. (Attorney/Agent)	19,382
Name (Print/Type)	Terrell C. Birch	Telephone	(703) 205-8000
		Date	December 15, 2005